REMARKS

This Amendment is filed in response to the Office Action dated February 12, 2004. Applicant first notes with appreciation the Examiner's thorough examination of the application as evidence by the Office Action. In response to the Office Action, Applicant has amended Claims 1, 22, and 43. These claims were amended to clarify the claimed invention. Further, Applicant added new Claims 64-75 to high-light additional patentable features of the invention. Applicant respectfully submits that all of the claims are patentable and request reconsideration based on the remarks below.

I.   Description of the Claimed Invention

As background, the claimed invention provides systems, methods, and computer program products for redirecting the display of information from a first display to a remote display. Display redirection is typically used in network environments to allow a remote user on a remote computer to view the data being displayed on a local computer. For example, the remote user may be an IT management person, who is troubleshooting errors on a computer. In these systems, an output redirection handler is used to "grab" display data from the computer and redirect it to the remote user's display.

The claimed invention recognizes and solves a problem with many conventional redirection systems. Specifically, Applicant noted that many different computers may run different versions of a piece of software. This required that the remote computer used for redirection had to also contain various versions so as to be compatible with each of the computing systems. Further, it was noted that the programs needed to display the information in an appropriate language for the remote user to read. This required that the systems maintain different versions of the software for each language.

To overcome these issues, the claimed invention provides a unique and non-obvious way to allow output redirection without requiring maintenance of several versions of software. Specifically, in one embodiment, the present invention provides a system containing a display management module that interfaces with the computer program and the display terminal. The

display management module is an intermediate module that interprets display commands from the computer program and controls the display to output the desired information. The system further includes data modules stored on a computer-readable medium containing text and graphical data used by the computer program to display information on the display terminal. Individual 16 bit identification numbers called tokens are associated with the text strings located in the data modules.

In this embodiment, the source code for the computer program includes the tokens associated with the data strings stored in the language modules, instead of the associated data strings themselves. In operation, when the computer program wishes to display information on the display terminal, the computer program transmits the token associated with the data string to the display management module. The display management module retrieves the data string associated with the token and also any associated font data. Using the data string and the font data, the display management module displays the information on the display terminal.

Advantageously, because the data strings are tokenized and stored in a computer-readable medium separate from the source code of the computer program, these data strings can be easily updated without requiring reprogramming of the source code. Thus, if a software developer wishes to change the text of the message displayed to the user, or the logo, or the text box displayed to the user, the developer need only change the data string in the appropriate module and not reprogram the source code associated with the computer program. Further, because the font data associated with each character of the data strings is stored in the font and language modules, as opposed to the source code of the computer program, the overall size of the source code of the computer program is reduced.

II. Independent Claims 1, 22, 43, and 64 Are Patentable

In paragraph 3, the Office Action rejects Claims 1, 22, and 43 under 35 U.S.C. § 102(e) as anticipated by U.S. Patent 6,065,041 to Lum. The Office Action alleges that the '041 Lum patent discloses all aspects of these claims. Applicant, however, respectfully disagrees with these rejections.

As best understood, the '041 Lum patent describes a system that includes a server for providing web pages to remote computers. The server includes a series of web pages that are formatted in different languages or for different types of remote displays. When the web pages are requested by a remote computer, the server first determines what language and/or remote display is used by the remote computer. The server then sends the appropriate web pages in the proper language format and/or display format to the remote computer, such that the contents of the web pages may be properly read by the user at the remote computer.

Applicant respectfully submits that the '041 Lum patent fails to teach or suggest at least two aspects of the present invention as claimed in Claims 1, 22, 43, and 64. First, the '041 Lum patent nowhere teaches or suggests an output redirection handler that receives information intended for a first display and provides the information to a remote display. As is described in the patent application, an output redirection handler is a specific device that is for redirection of information to be displayed on a first computer to the display of a second computer. Specifically, an output redirection handler retrieves data that is to be displayed on the display of a local computer, formats the data, and transmits it to a remote computer, such that the data may also be displayed on the remote computer. This allows a remote user to observe the same information on their remote display as is being displayed on the display of the local computer. This feature is advantageously used for diagnostic purposes or for remote training or conferencing. The '041 Lum patent discloses no such feature.

The Office Action appears to argue that because the server in the '041 Lum patent provides the web pages to the remote computers, it is performing output redirection. This is not the case. First, there is no "redirection" of the web pages, only "direction" of the web pages to the remote computers. The '041 Lum patent nowhere teaches or suggests the concept of viewing remotely the same information as is being displayed on a local display. Nowhere does the '041 Lum patent teach or suggest that there is a display associated with the server, nor that information that is to be displayed on the display associated with the server is "redirected" to the remote computer. The server of the '041 Lum patent is just that; a server. It merely transmits web pages requested by remote users. There is no redirection function. More importantly, one skilled in the art of output redirection would not look at the '041 Lum patent and characterize

serving of web pages as "output redirection" as that term is known in the art. At a minimum, the '041 Lum patent would have to disclose that the web pages are initially to be displayed at the server, but are then redirected by the server to the remote computers so that the remote computers can also view the same data being displayed at the server. This disclosure is nowhere found or suggested in the '041 Lum patent.

A second point of distinction concerns the use of tokens stored in the source code of the computer program of the claimed invention that represent text or graphical data to be displayed. As described above, the claimed invention places text and graphical data to be displayed by the computer program in a separate module. Tokens are then used in the source code of the computer program to reference the proper text or graphical data to be displayed from the modules. In this way, the system is much easier to upgrade and maintain. For example, as there are a plurality of different modules for different languages or different graphics all of which are referenced by the same tokens, there is no need to have multiple versions of the source code. In addition, new languages, text, and graphics can be added or modified at the module level as opposed to the source code level.

Applicants respectfully submit that the '041 Lum patent does not teach or suggest this aspect of the claimed invention. The '041 Lum patent in effect offers a different solution to that of the claimed invention. Instead of having one version of source code and different data modules that are referenced by tokens in the source code, the system of the '041 Lum patent merely creates completely different web pages for each language or display type. The '041 Lum patent is essentially an example of the type of prior art system that the claimed invention seeks to replace. In the '041 Lum system, the user must maintain various versions of the web pages in each language. Each time the web pages are updated, the user must update each and every version of the web page. This is the exact problem that the claimed invention remedies by placing tokens in the source code and placing text and graphical data corresponding to the tokens in separate modules. With the claimed invention, to add a new language, the user merely need create a new language module. Also, updates to the computer program that do not affect the text or graphics displayed need only be made in the source code and not in multiple versions of the source code.

In short, the '041 Lum patent nowhere teaches or suggests providing a computer program having tokens representing text or graphical information to be displayed and individual data modules containing text or graphical data corresponding to the tokens as is recited in independent Claims 1, 22, 43, and 64. Thus, for this reason and the other reasons stated above, Applicant respectfully submits that Claims 1, 22, 43, and 64, as well as the claims that depend therefrom, are patentable over the cited references.

III.   Newly Added Independent Claim 64 is Patentable for Additional Reasons

In addition to the remarks in Section II above, independent Claim 64 is also patentable for an additional reason. Specifically, Claim 64 recites that the computer program is a BIOS POST program. The '041 Lum patent nowhere teaches or suggests this aspect of Claim 64.

IV.   Claims 6, 27, and 48 Include Patentable Subject Matter

Claims 6, 27, and 48 recite that the remote display handler stores an attribute representing the color of characters being displayed on the remote display so that this command does not have to be repeatedly sent with each new set of data sent to the remote display. This is nowhere taught or suggested by the '041 Lum patent. The sections of the '041 Lum patent cited in the Office Action as meeting these claims first do not disclose a remote display handler or that the remote handler stores an attribute concerning the color that fonts are being displayed in the remote computer. First, the "scripts" pointed to by the Office Action in the '041 Lum patent are stored on the server, not at the remote computer as is recited in the claims. Second, these scripts are in no way customized for the colors used by each remote display. These scripts are just the scripts used for each web page created by the server.

Finally, because the system of the '041 Lum patent sends whole web pages to the remote computers, it has no need to keep up or track the color used by the remote display, because for each request of data from the remote computer, the server sends the entire web page. Unlike the system of the '041 Lum patent, the system of the claimed invention sends individual data to the remote computers. As such, it is important for it to know with each transmission what color font is already in use for displaying the information on the remote computer. By keeping up with this

color attribute at the remote computer, the font color data does not have to be resent with each transmission. This is not of concern the '041 Lum system.

V.   Claims 7, 28, and 49 Include Patentable Subject Matter

Claims 7, 28, and 49 serve a function similar to that of Claims 6, 27, and 48. Instead of keeping up with the color used by the remote display, these claims recite a system that keeps up with current cursor position on the remote display, such that this information does not have be sent with each data transmission to the remote display. Hereagain, this aspect is neither taught nor suggested by the '041 Lum patent. As the '041 Lum patent sends entire web pages with each transmission, it does not need to know current cursor position at the remote computer.

VI.   Claims 8-17, 29-38, 50-59, and 69-75 Include Patentable Subject Matter

Claims 8-17, 29-38, and 50-59 either directly recite or depend from claims that recite individual data modules containing text or graphical data that is associated with tokens that correspond to tokens stored in the computer program. These tokens allow the system to match data to be displayed with the tokens output by the computer program. The '041 Lum patent nowhere teaches or suggests this aspect of the claimed invention. As mentioned, the '041 Lum patent stores entire web pages in the server and sends them to the remote computers. Although these web pages include text and graphical data, the text and graphical data do not have associated tokens. The '041 Lum patent sends the web page file as a whole and does not send individual data in the web page based on tokens received from the computer program.

CONCLUSION

In view of the amended and added claims and the remarks presented above, it is respectfully submitted that all of the present claims of the application are in condition for immediate allowance. It is therefore respectfully requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicant's undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.
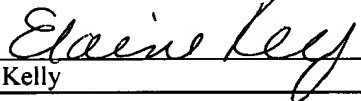
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Elaine Kelly